

ACCESSION NR: AP4040960

magnetic spire moment of the unpaired electron. An additional superfine structure composed of five lines manifested itself in the EPR spectra for compounds II, IV and V of the Figure of Enclosure 01. The possibility of disrupting the molecular coplanarity is the greatest with these compounds. The additional superfine structure did not appear in the EPR spectra for compounds I and III. The assumption could be made that this is associated with the ability of chelates I and III, as the more coplanar, to form associates. Actually, the formation of associates could lead to the elimination of the additional superfine structure owing to the origination of a dipole spin-spin interaction. The presence of the additional hyperfine structure in the II, IV and V compounds and its absence in the I and III compounds can only be explained by the peculiarities of the molecular structure, especially by the intensive disruption of their coplanarity through the introduction of the CH_3 group instead of the aldehyde group's hydrogen atom. Disruption of the coplanarity produces an essential influence on the distribution of the electron density of the unpaired electron in the molecule. Authors conclude that one and the same structural peculiarities of the investigated copper chelate compounds, associated with disruption of the molecular coplanarity under the effects of steric factors produce a change in the compound's optical activity and EPR spectra. "Authors thank N. V. Vereyna and N. A. Begunova for their help in conducting the experiment." Orig. art. has: 3 figures.

Cord 2/4

ACCESSION NR: AP4040960

SUBMITTED: 17Mar64

ENCL: 01

SUB CODE: OP, IC

NO REF SOV: C07

OTHER: 002

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-chemical Institute); Moskovskiy Gosudarstvennyy/ im. M. V. Lomonosova (Moscow State University) universitet

Card 3/4

SHIGORIN, D.N.; PISKUNOV, A.K.; OZEROVA, G.A.; SHCHEGLOVA, N.A.; VEREYN, N.V.

Role of the H-bonding in the processes by which radicals are formed
as a result of the deactivation of the excited electronic states of
molecules. Dokl. AN SSSR 158 no.2:432-435 S '64.

(MIRA 17:10)

l. Fiziko-khimicheskiy institut im. L.Ya.Karpova. Predstavлено aka-
demikom S.S.Medvedevym.

RODIONOV, A.N.; TAI-ALAYEVA, T.V.; SHIGORIN, D.N.; RODIONOVA, G.N.;
KOCHESHKOV, K.A.

Infrared spectra of isotope-substituted ethyllithium molecules.
Izv. AN SSSR. Ser. khim. no.4:604-610 '65. (MIRA 18:5)

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova.

7-65 EPA(s)-2/EWT(r)/EPF(c)/EPF(n)-2/EPR/EWP(J)/EPF(C)/
PC-4/Pr-4/Ps-4/Pt-10/Pu-4 IJP(c)/RPL JD/WW/JG/RM
ACCESSION NR: AP5006412 S/0062/65/000/001/0042/0046 7/ 70
5

AUTHOR: Rodionov, A. N.; Timifeyuk, G. V.; Talalayeva, T. V.; Shigorin, D. N. i
Kocheshkov, K. A.

TITLE: Infrared spectra of certain acetylenides of lithium, sodium, and potassium

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 1, 1965, 42-46

TOPIC TAGS: spectrum analysis, acetylene, acetylene compound, lithium, lithium compound, sodium, sodium compound, potassium, potassium compound

ABSTRACT: The infrared spectra of certain aliphatic and aromatic acetylenides of lithium, sodium, and potassium were measured with a double-beam Hilger H-800 spectrometer with prisms of LiF, NaCl, and KBr (from 4000 to 400 cm^{-1}). Samples were taken in the form of a suspension in vaseline and fluorinated oils and were prepared in an atmosphere of dry argon. The infrared spectra obtained indicated characteristic oscillation frequencies of the groups found in this class of compounds ($\text{C}-\text{H}$, $\text{C}=\text{H}(\text{D})$, $\text{C}=\text{C}$, $\text{C}=\text{C}-\text{C}$, $\text{C}=\text{C}-\text{H}$, $\text{C}=\text{C}-\text{Li}$). In comparison with the oscillation of acetylene and its halide derivatives that of the $\text{C}-\text{H}$ and the $\text{C}=\text{C}$ groups is displaced 50-100 cm^{-1} in the direction of the long waves, due to intra- and intermolecular interactions of these groups. A shift of the oscillation frequency of the bond of the

Card 1/2

1440777-65

ACCESSION NR: AP5006412

alkine group occurred in the order Li + Na + K. Orig. art. has: 1 table, 1 figure.
ASSOCIATION: Fiziko-khimicheskoy institut im. L. Ya. Karpova (Physical-Chemical
Institute)

SUBMITTED: 01Mar63

NO REF SOV: 002

ENCL: 00

SUB CODE: OC, QP

OTHER: 004

BH
Card 2/2

2C
15
S/0051/65/018/003/0526/0529

AUTHOR: Bashardin, N. A.; Perkashina, L. B.; Dinstrov, B. G.; Peregudov, G. V.
Dostrov, N. B.; Shirokina, A. I.; Shirokina, N. N.

TITLE: Investigation of stimulated emission in solutions of rare-earth chelates

SOURCE: Optika i spektroskopiya, v. 18, no. 3, 1965, 526-529

TOPIC TAGS: rare earth compound, chelate, stimulated emission, laser action, laser material

ABSTRACT: To check on the feasibility of using rare-earth chelates for stimulated emission, the authors investigated frozen solutions of the Eu-, Tb-, and Sm-dibenzylmethane (DBM), Eu- and Tb-benzoylacetone (BA), Eu-(ethylenediamine-salicylaldehyde) (EDSA), Eu- and Sm-nitrosalicylaldehyde, a Eu- and Sm-picric acid, Eu-, Tb-, and Sm-necetylacetone, Tb-vinyl salicylate, Eu-salicylaldehyde, and Eu-(di-methyl benzoate) complexes. Only the first six of these compounds withstood the action of strong light pulses and could be obtained in solution of required concentration ($\sim 10^{-2}$ mole/liter). The solvents were various mixtures and pure substances forming glasslike matrices at low temperatures. The absorption and luminescence

Card 1/3

With the information concerning the
various methods of determining
the absolute brightness of
the sun, it is possible to
compute the absolute brightness
of the sun in terms of the
well known absolute brightness
given in Table 2 of the Enclosure. It
is the experimental conditions. In the
case of the sun, it could be attained with a
small telescope and L. A.
investigation of pounds." [02]

EJB CODE: EC, IC

ATD PRESS: 3220

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001549410019-7"

SHABLYGIN, M.V.; SHABLYGIN, D.N.; SHABLYGIN, N.V.

Spectroscopic study in the Faraday series. Khim. prikl. spekt.
3 no.1:56-64, 1965. (MIFM 18:9)

GASTILOVICH, Ye.A.; SHIGORIN, D.N.; KOMAROV, N.V.; YAROSH, O.G.

Electro-optical parameters of the \equiv C—Ge, \equiv C—H, \equiv C—Si bonds of certain acetylene derivatives consisting of one or several acetylene groups. Opt. i spektr. 19 no.2:287-289 Ag '65.
(MIRA 18:8)

L 48987-6 EWP(j)/EWT(m)/T Pg-4 PM

ACCESSION NO: AP5011474

UR/0076/65/039/004/1002/1006

26
18
B

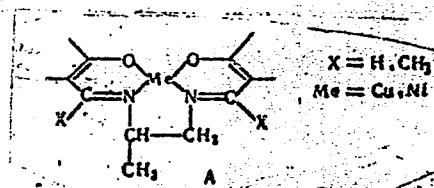
AUTHOR: Terent'yev, A. P.; Rukhadze, Ye. G.; Panova, G. V.; Shigorin, D. N.

TITLE: Infrared spectra of optically active chelates of copper and nickel with hydroxyaldimines and hydroxyketimines

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 4, 1965, 1002-1006

TOPIC TAGS: infrared spectrum, copper chelate, nickel chelate, optical activity, hydroxyaldimine, hydroxyketimine, steric hindrance

ABSTRACT: The paper continues a study of optically active chelates containing the chelate unit A:



Card 1/2

L 48987-65

ACCESSION NR: AP5011474

The IR spectra were recorded with a Hilger spectrometer using KBr pellets. The results, which are fully tabulated, show that an increase in steric hindrance in the molecules (associated with the substitution of $X=CH_3$ for $X=H$) causes a decrease in the frequency of the stretching vibrations of the C=N group included in the quasi-aromatic ring. A comparison of compounds with the same steric factor indicates that with a decrease in the order of the C=C bond, on which the metal ring is built, the vibrational frequency of the C=N group increases. Bands which characterize the deformation vibrations of C-H and the vibrations of C=N groups are located in the range of $1430-1470\text{ cm}^{-1}$. The frequencies of $1430-1385\text{ cm}^{-1}$ and $1370-1356\text{ cm}^{-1}$ characterize plane deformation vibrations of CH_3 and CH_2 groups. Bands at $1195-1190\text{ cm}^{-1}$ correspond to plane deformation vibrations of C-H groups. Frequencies of $770-800\text{ cm}^{-1}$ correspond to nonplanar vibrations of the C-H groups. In the range below 670 cm^{-1} are located frequencies characterizing the deformation vibrations of the chelate unit and the stretching vibrations of Me-O and Me-N. Orig. art. has: 1 figure and 2 tables.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University); Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physicochemical Institute)

SUBMITTED: 13May64

ENCL: 00 SUB CODE: 0C, OP

NO REF Sov: 004

OTHER: 005

Card 2/2 - mB

FLOTNIKOV, V.G.; SHIGORIN, D.N.

Role of the $n \rightarrow \pi$ -promotion in the generation of radicals.
Dokl. AN SSSR 160 no.1:166-169 Ja '65.

(MIRA 18:2)

1. Fiziko-khimicheskiy institut im. L.Ya. Karpova i Sibirskiy
fiziko-tehnicheskiy institut im. V.D. Kuznetsova. Submitted
August 18, 1964.

SHAPET'KO, N.N.; SHIGORIN, D.N.; SKOLDINOV, A.P.; RYABCHIKOVA, T.S.;
RESHETOVA, L.N.

Chemical shifts of nuclear magnetic resonance of protons and
infrared frequencies of compounds with strong intramolecular
hydrogen bond of the type O - H...O. Zhur. strukt. khim. 6
no.1:155-157 Ja-F '65. (MIRA 18:12)

1. Fiziko-khimicheskiy institut imeni L.Ya.Karpova. Submitted
August 10, 1964.

KOZINA, M.P.; SHIGORIN, D.N.; SKOLDINOV, A.P.; SKURATOV, S.M.

Thermochemical determination of the stabilization energy for a
quasiaromatic ring with an H-bond. Dokl. AN SSSR 160 no.5:1114-
1116 F '65. (MIRA 18:2)

1. Moskovskiy gosudarstvennyy universitet i Fiziko-khimicheskiy
institut im. L.Ya. Karpova. Submitted August 18, 1964.

L 53757-45 EXP(1)/EXP(m)/EPF(c)/EPA(w)-2/EXP(j)/T/EWA(m)-2 PC-4/Pab-16/
Pr-4 Ld. (c) Rm

ACCESSION NR: AP5010172

UR/0020/65/161/002/0406/0409

AUTHOR: Shigorin, D. N.; Medvedev, S. S.; Potapov, V. K.

TITLE: Role of $\pi-\pi^*$ transitions in the processes of the ionization and decompo-
sition of compounds

SOURCE: AN SSSR, Doklady, v. 161, no. 2, 1965, 406-409

TOPIC TAGS: electron transition, ionization curve, anthraquinone molecule,
fluorenone molecule, cation radical, mass spectrographic analysis, carbonyl
group, chromophoric group /MKh-1303 mass spectrometer

ABSTRACT: With the aim of elucidating the role of $\pi-\pi^*$ transitions in the
processes of the ionization and decomposition of molecules, the author
investigated the ionization curves and occurrence potentials of ions of
anthraquinone and fluorenone by the electron shock method. The investigations
were performed with the aid of a MKh-1303 high-resolution chemical mass-
spectrometer adapted to measuring the ionization potentials of molecules by
the electron quasimonokinetic method. The first ionization potentials of
the molecules of anthraquinone and fluorenone correspond to the energies of

Card 1/3

L 53757-65

ACCESSION NR: AP5010172

separation of electrons from an undivided pair of oxygen atoms, while the second potentials correspond to the separation energies of π -electrons. This conclusion is in agreement with the fact that the first longwave band of the absorption spectrum of the anthraquinone molecule corresponds to the $\pi-\pi^*$ electron transition and the second band, to the $\pi-\pi^*$ electron transition. For fluorenone the yield of ions formed by the separation of the π -electron from a pair of oxygen electrons is 2-3 times smaller than for anthraquinone. This may be related to the difference in their ionization potentials ($I_{\pi}-I_{\pi}$) and the number of π -electrons of the investigated molecules per chromophoric group. The principal processes of the decomposition of anthraquinone molecules, as indicated by mass-spectrographic analysis, are the processes of the isolation of neutral CO groups from the molecules and formation of $C_6H_4COC_6H_4^+$ and $C_6H_4C_6H_4$ ions. Their occurrence potentials, as well as the occurrence potentials of the $C_6H_4C_6H_4^+$ ion from fluorenone, are tabulated. It is assumed that during the decomposition of the anthraquinone molecule and absorption of an energy of 10.39 ev by that molecule a single CO group is released. In the event of the absorption of an energy of 11.02 ev, two carbonyl groups are successively split off that molecule. One group is released by fluorenone at 10.14 ev. In both cases there form ions of

Card 2/3

L 53757-65
ACCESSION NR: AP5010172

an identical structure corresponding to the cation-radical of o-diphenylene. This may account, e.g., for the mechanism of the decomposition of alcohols. The molecules of these compounds, when in specified states, decompose as a result of the exchange interaction between the unpaired electrons of the oxygen atom and the electron of the adjacent carbon atom, which leads to the formation of a new bond between carbon and oxygen and the disruption of the C-H or C-C bond and the concomitant formation of the corresponding radicals R-CH-OH and cations R-HC = O-H. Orig. art. has: 5 figures, 1 table.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (L. Ya. Karpov
Physicochemical Institute)

SUBMITTED: 31Aug64

ENC: 00

SUB CODE: OC, GC

NO REF Sov: 006

OTHER: 003

294
Card 3/3

KOZLOV, Yu.I.; SHIGORIN, D.N.

Two-quantum photochemical processes in frozen solutions of tri-
phenylmethane compounds. Dokl. AN SSSR 161 no.4:871-874 Ap '65.
(MIRA 18:5)

I. Fiziko-khimicheskiy institut im. L.Ya.Karpova. Submitted
October 3, 1964.

KHOMEEKLY, E.I.; SHIGORIN, D.N.

Mechanism of the generation of radicals during the excitation
of systems with intermolecular hydrogen bonding. Zhur. fiz.
khim. 39 no.8:2053-2055 Ag '65. (MIRA 18:9)

1. Moskovskiy fiziko-khimicheskiy institut imeni Karpova.

SHCHEGLOVA, N.A.; SHIGORIN, D.N.; GORELIK, M.V.

Electronic spectra of aromatic α -diketones. Zhur. fiz. khim.
39 no.4:893-901 Ap '65. (MIRA 19:1)

1. Fiziko-khimicheskiy institut imeni Karpova. Submitted Nov. 11,
1963.

PLOTNIKOV, V.G.; DANILOVA, V.I.; SHIGORIN, D.N.; TERPUGOVA, A.F.;
ZUBKOVA, L.B.; FILIPPOVA, L.G.

Theoretical study of the spectral behavior of systems with
a quasi-aromatic cycle. Zhur. fiz. khim. 39 no.9:2311-2312
(MIRA 18:10)
S '65.

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya
AN SSSR.

PLOTNIKOV, V.G.; SHIGORIN, D.N.

Role of π -electrons in the formation of hydrogen bonding.
Zhur.fiz.khim. 39 no.10:2668-2671 0 '65.
(MIRA 18:12)
I. Fiziko-khimicheskiy institut imeni Karpova, Moskva.
Sibirskiy fiziko-tehnicheskiy institut imeni Kuznetsova.
Submitted September 10, 1964.

POPOVA, Ye.G.; SHIGORIN, D.N.; SHAPET'KO, N.N.; SKOLDINOV, A.P.; GOL'FER, G.A.

Symmetry of quasi aromatic rings. Zhur.fiz.khim. 39 no.11:2726-
2729 N '65. (MIRA 18:12)

1. Moskovskiy fiziko-khimicheskiy institut imeni L.Ya.Karpova.

L 16132-66 EWP(j)/EWT(m) RM
ACC NR: AP6004184

SOURCE CODE: UR/0076/66/040/001/0200/0203

AUTHOR: Potapov, V.K.; Shigorin, D.N.

61

B

ORG: Physicochemical Scientific Research Institute im. L. Ya. Karpov, Moscow
(Nauchno-issledovatel'skiy fiziko-khimicheskiy institut)

44/55

TITLE: Relationship between the nature of electronic states of acetone molecules and the mechanism of their dissociation under electron impact

SOURCE: Zhurnal fizicheskoy khimii, v. 40, no. 1, 1966, 200-203

TOPIC TAGS: acetone, excited electron state, ionization potential, free radical, ion, mass spectrometry, ionization

ABSTRACT: To elucidate the mechanism of dissociation of acetone molecules as a function of their electronic states, curves of the ionization and dissociation of these molecules were studied by the electron impact method. Measurements were made with an MKh-1303 chemical mass spectrometer. The first ionization potential of acetone I_h , corresponding to the detachment of the n-electron of the hetero atom (oxygen) of the chromophoric group

UDC: 541.6

Card 1/2

L 16132-66

ACC NR: AP6004184

with formation of a cation radical, is equal to 10.03 eV, with yield $W = 1.0$. The second and third ionization potentials coincide with the appearance energies of ions of mass 43. This means that the ionization of acetone involves the dissociation of the molecules into the CH_3CO^+ cation and CH_3 radical. Ionization processes at higher electron energies apparently correspond to processes of formation of ions and radicals in excited electronic states. The dissociation mechanism is also discussed in terms of the nature of the n , π^* and π , π^* electronic states of the acetone molecule. Orig. art. has: 2 figures, 1 table, and 4 formulas.

SUB CODE: 07a/SUBM DATE: 24Dec64/ ORIG REF: 002/ OTH REF: 004

Card 2/2

SIMONOV, A.P.; SHIGORIN, D.N.; TSAREVA, G.V.; TALALAYEVA, T.V.;
KOCHESHKOV, K.A.

Infrared absorption spectra and the structure of some simple
lithium, sodium, and potassium alcoholates. Zhur. prikl. spekt.
3 no. 6:531-537 D '65 (MIRA 19:1)

1. Submitted August 18, 1964.

TRIBLANT'YEV, A.P.; RUKHARDE, Ye.G.; PANOVA, G.V.; SHIGORIN, D.N.

Infrared spectra of the optically active chelate compounds of
copper and nickel with oxyaldimines and oxyketimines. Zhur. fiz.
khim. 39 no.4:1002-1006 Ap '65. (MIRA 19:1)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova i
Fiziko-khimicheskij institut imeni Karpova, Moskva. Submitted
May 13, 1964.

L 36188-66 EWT(m)/EWP(j) RM/MM
ACC NR: AP6010748

SOURCE CODE: UR/0076/66/040/003/0700/0703

AUTHOR: Kozlov, Yu. I.; Shigorin, D. N.; Ozerova, G. A.

ORG: Physicochemical Institute im. L. Ya Karpov (Fiziko-khimicheskiy institut)

TITLE: Sensitized photodecomposition of triphenylmethane compounds in the solid phase. Part 1: Photosensitization with aromatic amines

SOURCE: Zhurnal fizicheskoy khimii, v. 40, no. 3, 1966, 700-703

TOPIC TAGS: triphenylmethane, photosensitivity, free radical, amine

ABSTRACT: The photodecomposition of triphenylmethane compounds, sensitized with aromatic amines, was studied on binary mixtures of triphenylmethane and triphenylmethanol with triphenylamine, diethylaniline, leuco base of crystal violet, azobenzene, and acridine. Dilute solutions of these mixtures in heptane, isopentane, and ethanol were then frozen at 10^{-3} mm Hg and 77°K and irradiated with the 313 and 334 $\mu\mu$ mercury lines, corresponding to the long-wave absorption bands of the amines. The absorption and luminescence spectra and the ESR spectra of the radicals of the matrix were recorded. The addition of aromatic amines was thus found to initiate the formation of triphenylmethyl radicals. Ethanol inhibits the formation of $\text{Ph}_3\text{C}^{\cdot}$ radicals in the triphenylamine - triphenylmethane mixture as a result of a screening of the amine, which forms associates with the alcohol molecules. Sensitizers of the

UDC: 541.14

Cord 1/2

L 36188-66

ACC NR: AP6010748

formation of $\text{Ph}_3\text{C}^\bullet$ radicals are aromatic amines in the excited state, which detach hydrogen from the \rightarrow C-H group of triphenylmethane compounds. Under the experimental conditions studied, naphthalene and acridine do not sensitize the photodecomposition of triphenylmethane compounds. Orig. art. has: 3 figures.

SUB CODE: 07/ SUBM DATE: 27Mar65/ ORIG REF: 013/ OTH REF: 006

Card 2/2 in LP

I 36442-66 EWP(j)/EWT(l)/EWT(m) IJP(c) RM
ACC NR: AP6018075 SOURCE CODE: UR/0076/66/040/005/1154/1157

AUTHOR: Nurmukhametov, R. N.; Plotnikov, V. G.; Shigorin, D. N.

ORG: Physico-Chemical Institute im. L. Ya. Karpov (Fiziko-khimicheskoy institut)

TITLE: Nature of the electronically excited states and luminescence of molecules

SOURCE: Zhurnal fizicheskoy khimii, v. 40, no. 5, 1966, 1154-1157

TOPIC TAGS: luminescence, UV spectrum, molecular structure, molecular spectroscopy, phosphorescence, excited state, absorption band

ABSTRACT: Electronically excited states and luminescence of hydrocarbon molecules containing C = O, C = S, C = N, N = N, and N = O groups and conjugated double bonds were studied. The UV spectra of several molecules were analyzed and various absorption and phosphorescence bands were assigned to the following four basic types of singlet and triplet excitations: S_{π,π^*} , T_{π,π^*} , S_{n,n^*} , T_{n,n^*} . In general, the electronic excitations and luminescence were attributed to electron transitions of the π,π^* and n,π^* types. It is postulated that the singlet and triplet π,π^* and n,π^* excitations are characteristic of molecular structure. Orig. art. has: 2 figures and 1 table.

SUB CODE: 20/ SUBM DATE: 21Sep65/ ORIG REF: 018/ OTH REF: 010
Card 1/1 215 UDC: 541.6+543.42

L 36957-66 EWT(m)/EWP(j) JW/RM
ACT NR: AP6014901 SOURCE CODE: UR/0076/65/039/012/3118/3119

AUTHOR: Zhuravleva, T. S.; Shigorin, D. N.

ORG: Moscow Physicochemical Institute im. L. Ya. Karpov (Moskovskiy fiziki-khimicheskiy institut)

TITLE: Generation of the radicals of a matrix using aromatic ethynyl derivatives

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 12, 1965, 3118-3119

TOPIC TAGS: luminescence spectrum, radical concentration, ethynyl

ABSTRACT: The article describes the use of electron paramagnetic resonance and the luminescence method to generate the radicals of a matrix at 77°K. The use of ethynyl derivatives as luminophores is interesting first of all because of the high reaction capacity of the C ≡ C bonds, and also because of their ability to form W-complexes between themselves and with the molecules of other compounds. In the present work, the luminophores used were aromatic derivatives of ethynyl: phenyl, ethylphenyl, diphenylacetylene (concentration of 10⁻¹ to 10⁻⁴ gram-moles/liter in a standard matrix). The above luminophores were found to be luminescent under the conditions of the experiment (the

UDC: 541.15

Card 1/2

L 36957-66

ACC NR: AP6014901

region of approximately 3900-4500 \AA , ~ 2 sec); corresponding observations were made of their triplet electron paramagnetic resonance signal, with a g-factor approximately equal to 4. Orig. art. has: none.

SUB CODE: 07/ SUBM DATE: 26May65/ ORIG REF: 005/ OTH REF: 003

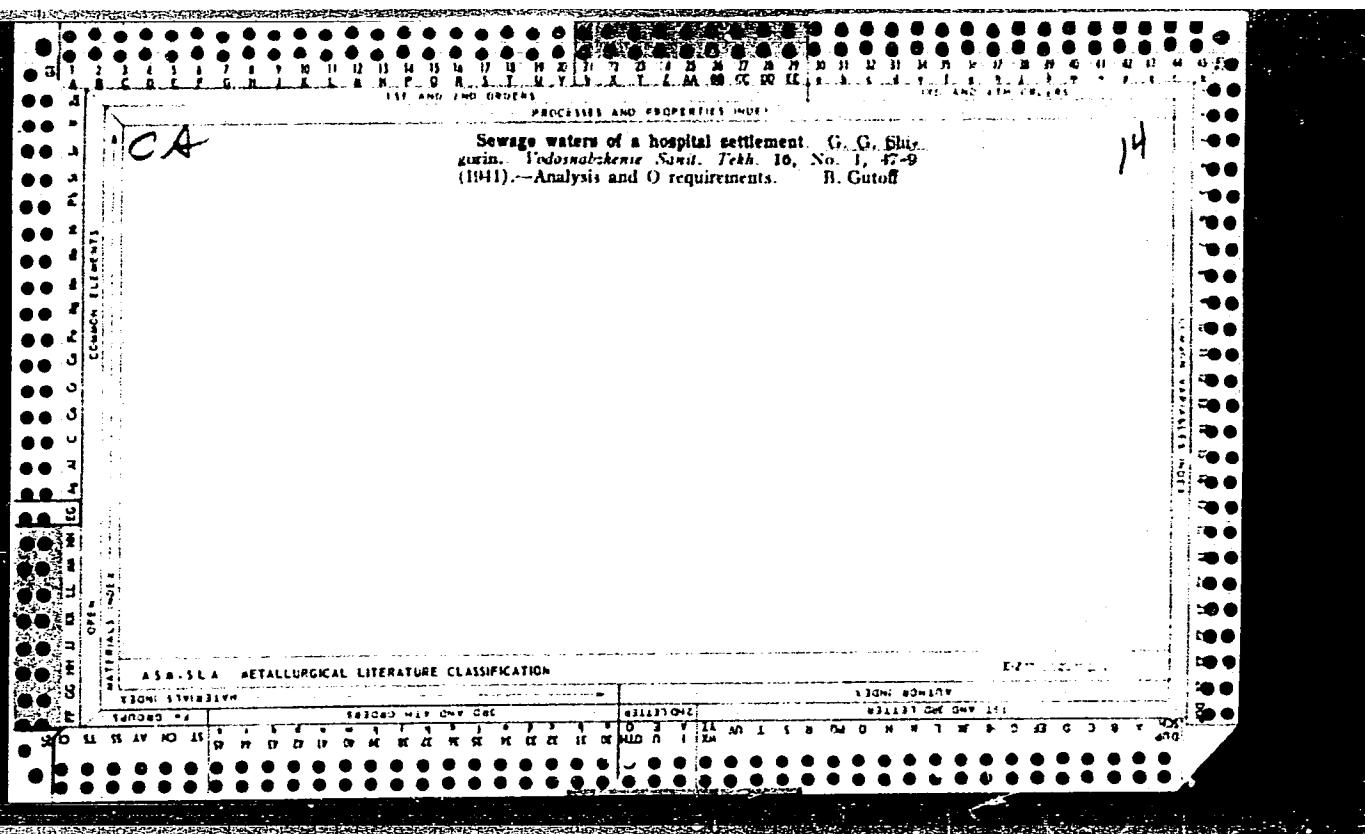
Card 2/2

LITVIN, F.L.; PRINTSENTAL', S.G.; SHIGORIN, G.F.; KOLCHIN, N.I., professor,
doktor tekhnicheskikh nauk, redaktor.

[Production of multiple-thread worm gears with new geometry]
Proizvodstvo mnogozakhodnykh cherviachnykh peredach s novoi
geometriei. Pod obshchei red. N.I.Kolchina. Leningrad, Gos.
nauchno-tekhn. izd-vo mashinostroit.i sudostroit. lit-ry [Le-
ningradskoe otd-nie] 1953. 50 p. (Novatory proizvodstva)

(MLRA 7:3)

(Gearing, Worm) (Spiral milling)



SHIGORIN, G. G.

Shigorin, G. G. and Gusev, L. M. "The production and use of gas from the settling of sewage", San. tekhnika (Nauch.-is-sledi.in-tkommunal. khoz-va Ispolkomu Lengorsoveta), Issue 1, 1949, p. 74-133.

SO: U-3261, 10 April 53, (Letopis 'zhurnal 'nykh statey, No. 12, 1949)

SHIGORIN, G. G.

Shigorin, G. G. "A diagram for using the new sewage system of Leningrad for the removal and processing of domestic garbage," San. tekhnika (Nauch.-issled. in-t kommunal. khoz-va Ispolkomu Lengorsoveta), Issue 1, 1949, p. 134-58

SO: U-3261, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 12, 1949)

SHIGORIN, G. G.

32679. Voprosy splava razmel'chennogo domovogo musora po kanalizatsionnym setyam.
Doklad na konferentsii, sozv. Nauch.-issled. In-tom kommunal. Khozyaystva
ispolkomu lengorsoveta. May 1949 G. / Materialy po kommunal. Khoz-vu, 1949, SB. 3,
s. 61-67

SO: Letopis' Zhurnal'nykh Statey, Vol. 44, Moskva, 1949

... 1 , . .

Technology

Chast' II, Ochistka stochaykh vod (Sewerage. Part 2: Purification of sewage).
Moskva, Izd. Min-va kom. khoz-va, 1951. 364 p.

9. MONTHLY LIST OF RUSSIAN ACCESSIONS, Library of Congress, November 1952. Uncl.

SHIGORIN, G.G.

SHIGORIN, G.G., kandidat tekhnicheskikh nauk; KARPINSKIY, A.A.,
kandidat tekhnicheskikh nauk, redaktor.

[Use of sewer systems for cleaning towns] Ivpol'zovanie kanalizatsii
dlia ochistki gorodov. Moskva, Izd-vo Ministerstva kommunal'nogo
khoziaistva RSFSR, 1954. 150 p. (MLRA 7:8)
(Sewerage)

SHIGORIN, G.-G.

MOLOKOV, Mikhail Vladimirovich; SHIGORIN, Georgii Gavrilovich; KARAGODIN,
V.L., redaktor; NOVOCHADOV, A.G., redaktor; PETROVSKAYA, Ye.,
tekhnicheskiy redaktor

[Storm and general sewers] Dozhdevaia i obshchesplavnaya kanaliza-
tsiya; teoriia i raschet. Moskva, Izd-vo Ministerstva kommunal'nogo
khoziaistva RSFSR, 1954. 331 p. [Microfilm] (MLRA 8:3)
(Sewerage) (Rain and rainfall)

SHIFRIN, Semen Markovich, doktor tekhnicheskikh nauk, professor; SHIGORIN,
G.G., kandidat tekhnicheskikh nauk, nauchnyy redaktor; KAPLAN, M.Ya.,
redaktor izdatel'stva; PUL'KINA, Ye.A., tekhnicheskiy redaktor

[Modern methods for mechanical purification of sewage] Sovremennye
sposoby mekhanicheskoi ochistki stochnykh vod. Leningrad, Gos.
izd-vo lit-ry po stroit. i arkhit., 1956. 179 p. (MLRA 10:4)
(Sewage--Purification)

FEDOROV, Nikolay Fedorovich, dokter tekhnicheskikh nauk, professor;
SAPOZHNIKOV, M.M., kandidat tekhnicheskikh nauk, redakter;
SHIGORIN, G.G., kandidat tekhnicheskikh nauk, detsent, retsenzent;
MORGENSENSTERN, V.S., kandidat tekhnicheskikh nauk, detsent, retsen-
zent; KAPLAN, M.Ya., redakter; PUL'KINA, Ye.A., tekhnicheskiy
redakter.

[New studies and hydraulic calculations of sewer systems] Novye
issledovaniia i gidravlicheskie raschety kanalizatsionnykh setei.
Leningrad, Gos. izd-vo lit-ry po stroy. i arhitekture, 1956.
257 p. (Sewer design) (MLRA 9:5)

EXCERPTA MEDICA Sec 17 Vol 5/3 Public Health Mar 59

1086. THE CENTRALIZED SYSTEM OF CANALIZATION AND THE USE OF
THE CANALIZATION FOR CLEANING OF THE TOWNS (Russian text) -
Shigorin G. G. - VODOSN. I SAN. TEKHNOl. 1957. 3 (7-9)

The new NITU projects for the canalization of the populated areas for the first time contain the directions and recommendations for the planning of centralized canalization. At the present time there are 14 towns in the USSR with centralized canalization and in 4 towns this system is under construction. As had been shown from figures for one of the Leningrad districts, the amount of pollution carried by the rainwater drains of the canal system into the water reservoir is only 8.3% of the total pollutants present in the rainwater. The cost of canalization of towns with populations of from 50 to 200 thousand may under favourable circumstances be 20-37% less with the centralized than with a separate system. The maintenance cost is also less by 20-40%. It is convenient to use the centralized system in towns with populations of more than 20-25 thousand, where rivers are available for discharge of sewage and rain water. It is a sound practice, both technically and economically, to plan the use of the canalization network for the cleaning of towns of impurities, domestic refuse and snow. The new NITU also contains provisions for disposal of the ground domestic refuse along the canalization network and standard norms of the resultant additional pollution. (S)

AGRANONIK, Ye.Z., kand.tekhn.nauk; BELOV, A.N., dotsent; GLADKOV, A.M., inzh.; GLUSKIN, S.A., inzh.; IVANOV, L.V., dotsent, kand.tekhn. nauk; LIPKIN, Ye.V., kand.tekhn.nauk; NIKIFOROV, G.N., dotsent, kand.tekhn.nauk; PESENSON, I.B., inzh.; PREGER, Ye.A., dotsent, kand.tekhn.nauk; PYATOV, Ya.N., inzh.; ROKHCHIN, Ye.Z., inzh.; FEDOROV, N.F., prof., doktor tekhn.nauk; SHVARTS, M.B., inzh.; SHIGORIN, G.G., dotsent, kand.tekhn.nauk; SHIFRIN, S.M., prof., doktor tekhn.nauk; POPRUGIN, I.V., inzh., retsenzent; KATS, K.F., inzh., retsenzent; ROTENBERG, A.S., red.izd-va; VORONETSKAYA, L.V., tekhn.red.

[Manual of water-supply engineering and sewerage] Spravochnik po vodosnabzheniiu i kanalizatsii. Pod red. N.F. Fedorova. Leningrad, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1959. 410 p.

(MIRA 13:3)

1. Moscow. Gosudarstvennyy proyektnyy institut Vodokanalproyekt. Leningradskoye otdeleniye.
(Water-supply engineering) (Sewerage)

SHIGORIN, Georgiy Gavrilovich; LUKINTKH, A.A., red.; RACHEVSKAYA, M.I.,
red. Izd-va; SALAZKOV, N.P., tekhn.red.

[Combined sewerage system; calculation and design] *Obshchesplavnaya*
sistema kanalizatsii; raschet i proektirovanie. Moskva, Izd-vo
M-va kommun.khoz.RSFSR, 1960. 207 p. (MIRA 14:3)
(Sewerage)

SHIGORIN, G.G.

AGRANONIK, Ye.Z., kand.tekhn.nauk; BELOV, A.N., dotsent; GLADKOV, A.M., inzh.; GLUSKIN, S.A., inzh.; IVANOV, L.V., dotsent, kand.tekhn. nauk; LIPKIN, Ye.V., kand.tekhn.nauk; NIKIFOROV, G.N., dotsent, kand.tekhn.nauk; PESENSON, I.B., inzh.; PREGER, Ye.A., dotsent, kand.tekhn.nauk; PYATOV, Ya.N., inzh.; ROKHCHIN, Ye.Z., inzh.; FEDOROV, N.F., prof., doktor tekhn.nauk; SHVARTS, R.B., inzh.; SHIGORIN, G.G., dotsent, kand.tekhn.nauk; SHIFRIN, S.M., prof., doktor tekhn.nauk; ROTENBERG, A.S., red.izd-va; VORONETSKAYA, L.V., tekhn.red.

[Water-supply and sewerage manual] Spravochnik po vodosnabzheniiu i kanalizatsii. Pod red. N.F.Fedorova. Izd.2., ispr. i dop. Leningrad, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materiam, 1960. 420 p. (MIRA 13:12)

1: Moscow. Vodokanalproyekt. Leningradskoye otdeleniye.
(Water-supply engineering) (Sewerage)

SHIGORIN, G., kand.tekhn.nauk (Leningrad)

Selecting types of sewer systems for populated areas. Zhil.-
kom.khoz. 10 no.1:9-10 '60. (MIRA 13:5)
(Sewerage)

FEDOROV, N.F.; SHIFRIN, S.M.; SHIGORIN, G.G.; PESENSON, I.B.; MORGENSHTERN, V.S., kand. tekhn. nauk, nauchnyy red.; KAPLAN, M.Ya., red. izd-va; PUL'KINA, Ye.A., tekhn. red.

[Sewerage systems and structures; planning and design] Kanalizatsionnye seti i sooruzheniya; proektirovanie i raschet. Leningrad, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 314 p.
(MIRA 14:7)

(Sewerage)

TSVETKOV, A.I.; SHUTOV, Yu.D.; SHIGORIN, G.G., kand. tekhn. nauk,
retsenzent; REYZ, M.B., red. izd-va; VORONETSKAYA, L.V.,
tekhn. red.

[Construction of sewer conduits by shield tunneling;
construction practices in Leningrad] Sooruzhenie kanali-
zatsionnykh kollektorov metodom shchitovoi prokhodki; opyt
stroitel'stva v Leningrade. Leningrad, Gos. izd-vo lit-ry
po stroit., arkhit. i stroit. materialam, 1961. 97 p.
(MIRA 15:2)

(Sewerage)

(Tunneling)

SHIGORIN, G.G.

Technical and economic evaluation of completely separate and
combined sewer systems. Sbor. nauch. rab. AKKH no.6:254-266
'61. (MIRA 15:3)
(Sewer design)

SHIGORIN, G.G., kand.tekhn.nauk

Selecting the type of sewage tanks for large water purification
plants. Vod. i san. tekhn. no. 7:6-8 Jl '65.

(MIRA 18:8)

SHUSORIN, G.G.

Methods of determining the pollution of surface runoff in
populated areas. Nauch. trudy AKAH no.20:142-148 '63.
(MIRA 18:12)

DR. A. A. L.

CAUSE OF BREAKDOWN OF CONSTANTAN-IRON THERMOCOUPLES WHEN USED
IN A ZINC-COATED IRON TUBE. . . SHIGORIN (SINTET. KAUCHUK. 1935, 4,
(1) C. Abs. 1935, 29, 2880) (In Russian) The couple deteriorated
because of evaporation of zinc and its deposition on the Constantan
side. Volatile metals should not be used as protective media for
thermocouple iron pockets. S.G.

Immediate source clipping

ACC NR: AP6030860

(A,N)

SOURCE CODE: UR/0191/66/000/009/0063/0065

AUTHOR: Shigorin, V. G.

33

ORG: none

B

TITLE: Lining of pipes with epoxy resins by a centrifugal methodSOURCE: Plasticheskiye massy, no. 9, 1966, 63-65TOPIC TAGS: pipe, epoxy plastic, protective coating

ABSTRACT: In the proposed centrifugal method of lining steel pipes, a pipe into which an epoxy composition has been introduced is rotated and heated at the same time in order to speed up the curing of the epoxy resin; the latter, liquefied by the heat, becomes evenly distributed over the walls of the pipe and sets in this state. A lining thus obtained has a mirrorlike surface which is free of pores and very hard and wear resistant. In the lining experiments performed, use was made of the low-molecular resins ED-5, ED-6 and E-40, with polyethylene polyamines as curing agents.¹⁵ Di-butyl phthalate was introduced to increase the initial flowability. The optimum speed of rotation of a pipe 50 mm in diameter was found to be 800 rpm, and the speeds for other diameters (25, 32, 40, 70, 80, 100, 125, 150, 175, 200 mm) were calculated and checked experimentally. The optimum temperature (130-150°C) and time of curing (20-30 min) were determined by studying the effect of the plasticizer and fillers on the cur-

Card 1/2

UDC: 678.643'42'5:620.197.6:66.026

I-08138-67
ACC NR: AP6030860

0

ing rate of the epoxy resins. Orig. art. has: 7 figures, 1 table and 1 formula.

SUB CODE: 11/ SUBM DATE: none

Card 2/2 1s

~~SECRET~~ 80297
S/115/60/000/04/018/041
D002/D006

~~SECRET~~ 9.6000

AUTHOR: Shigorin, V.P.

TITLE: A Bridge for Comparing Reference and Standard Resistors in the Range of 0.001 to 100,000 Ohms

PERIODICAL: Izmeritel'naya tekhnika, 1960, Nr 4, pp 33-36 (USSR)

ABSTRACT: This new instrument developed at VNIIM imeni D.I. Mendeleyeva (VNIIM imeni D.I. Mendeleyev) is a fully balanced bridge comparator (Figure 1) designed for comparisons of the standard and reference resistors. Its advantages are: only one feed source, and independence of the indications on the instability of the e.m.f. of the source. It is placed into a thermostatic bath of transformer oil together with a frame with a perforated ebonite bottom for the resistors to be tested. An automatic temperature re-

Card 1/3

80297
S/115/60/000/04/018/041
D002/D006

A Bridge for Comparing Reference and Standard Resistors in the Range of 0.001 to 100,000 Ohms

gulator with two electric mixers keeps the oil temperature at $20 \pm (0.01 \text{--} 0.03)^\circ\text{C}$. The major resistor bridge elements are made of manganin with a temperature coefficient of not more than 0.0015%. The adjustable arm consists of four modified decade elements of the Waidner-Wolf type /Ref. 1, English/. The bridge has practically no systematic error; the error through inaccuracy of the resistance regulation is not over 0.00001%; the effect of constant t.e.m.f. is excluded; the error through sensitivity is significant only in comparison of resistances with nominal value 0.001 and 100,000 ohm; the temperature error is casual and its range is between 0.00001 and 0.00005% when the load on the compared resistors is not over 0.05 watts. The bridge is recommended for

Card 2/3

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80297
S/115/60/000/04/018/041
D002/D006

A Bridge for Comparing Reference and Standard Resistors in the Range of 0.001 to 100,000 Ohms

use at the institutes of the Komitet standartov, meri izmeritel'nykh priborov (Committee of Standards, Measures and Measuring Devices), and at the Institut metrologii Kitayskoy Narodnoy Respubliki (Institute of Metrology of the Chinese People's Republic). There are 2 diagrams and 3 references, 2 of which are English, 1 Soviet. X

Card 3/3

Development
SHIGOVIN, V. P., Cand. Tech. Sci -- "Working out and study of new methods and
apparatus for ~~maximum~~ ^{minimum} precision of ^{DC.} measurement of ~~the~~ resistances." Len, 1960

(Min of Higher and Secondary Specialized Education RSFSR. Len Electrical Engineering
Inst im V. I. Ul'yanov (Lenin)). (KL, 1-61, 199)

S/058/62/000/003/002/092
A061/A101

AUTHORS: Gorbatsevich, S. V., Shigorin, V. P.

TITLE: Method and apparatus for precision measurements of d-c resistances

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1962, 11, abstract 3A121 ("Tr. in-tov Kom-ta standartov, mer i izmerit. priborov pri Sov. Min. SSSR". 1961, no. 52 (112). 27-36)

TEXT: Non-integral rated resistances, i.e., different from 10^k ($k = \text{integer}$), could hitherto be measured with far less accuracy than integral rated ones. The method described, based on the use of the apparatus developed at the VNIIM, lowers the errors of measurement of such resistances to $10^{-4} - 10^{-3}\%$. The resistances can be measured with a bridge comparator, either single or double, depending on the magnitude of the resistance to be measured, and with a number of standard series-connected resistors, permitting any ratios to be obtained in the vicinity of that of the resistances compared. Also a standard resistor box was developed, much like a long sliding resistor, permitting the ratio of two resistors, measured and standard, to be read with high accuracy. Circuit

Card 1/2

S/058/62/000/003/002/092
A061/A101

Method and apparatus ...

diagrams and formulae for calculating the corrections are presented, as well as experimental data confirming the high accuracy of measurements.

K. Shirokov

[Abstracter's note: Complete translation]

Card 2/2

SHIGORIN, V.P.; VOYCHINSKAYA, I.V.

Using the MKS-1 comparator for precision temperature measurements.
Izm.tekh. no.3:27-29 Mr '62. (MIRA 15:2)
(Thermometry)

GORBATSEVICH, S. V. ; LOVATNIKOVA, I. N. ; MVTIKOVA, T. F. ; SHKORIN, V. P.

Changes over in the USSR to new GOST resistance standards.
Trudy inst. Kom. stand. mer. i izm. prib. no. 6735-11 '62. (MIRA 17:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii imeni
Mendeleyava.

SHIGORIN, V.P.

New method for the calibration of electric resistance standards.
Izm.tekh. no.3:28-31 Mr '63. (MIRA 16:4)
(Electric standards)

SHIGORIN, V.P.

Stability of standard measures of electric resistance. Izm. tekhn.
no. 12:25-26 D 164. (MIRA 18:4)

SHIGORIN, V.P.

Network and methods for evaluating the accuracy of calibration of
standard resistances. Trudy inst. Kom. stand., mer. i izm. prib.
no. 74;5-10 '63. (MIRA 18:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im.
D. I. Mendeleyeva.

STRAIGHT SHOT

WRITE BELOW THIS LINE

POSTCARD

ACCESSION NR: AT4017004

S/3057/63/000/000/0148/0153

AUTHOR: Tikhomirov, V. B.; Shigorina, I. I.; Sidyakin, P. V.

TITLE: Gas-flame atomization of plastics onto large metal and concrete surfaces

SOURCE: Zashchitnye pokrytiya v atomnoy tekhnike (Shielding in nuclear engineering); stornik statey. Moscow, Gosatomizdat, 1963, 148-153

TOPIC TAGS: atomization, plastic deposition, atomic reactor shielding, shielding, nuclear reactor, atomic pile shielding, atomic reactor, nuclear shielding

ABSTRACT: Gas-flame atomization is the best method for obtaining shieldings of thermoplastic materials. The present investigation worked out methods for gas-flame atomization on construction materials. (See Fig. 1 in the Enclosure.) It was found that three 15-20 mm layers of M5-25 lacquer should be applied to metal or concrete surfaces, which are first cleaned of rust and dirt. Defects in the concrete should first be filled with a cement-polyethylene compound (water:cement: polyethylene 1:3:1), after which the material is moistened periodically for 10 days. Each layer of plastic is dried for 1-2 hours at 18-20C. The model UPN-4 VNIIAvtogen sprayer can be used for gas-flame atomization. For polyethylene coating on metal, the GLN-4 burner moves at a speed of 1-1.5 m/min. The con-

Card 1/3

ACCESSION NR: AT4017004

sumption of compressed air (2 atm) is 0.2 cu. m/min. and that of acetylene is 0.5 cu m/hr. The unit price for 1 sq. m of metal surface coating is 7-8 rubles. The problem of obtaining a shielding of the lowest possible porosity can be resolved by addition of graphite to the polyethylene. Orig. art. has: 3 figures.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 20Feb64

ENCL: 01

SUB CODE: MT, NP

NO REF SOV: 002

OTHER: 000

Card 2/3

SESSION NR: AT4017004

ENCLOSURE: 01

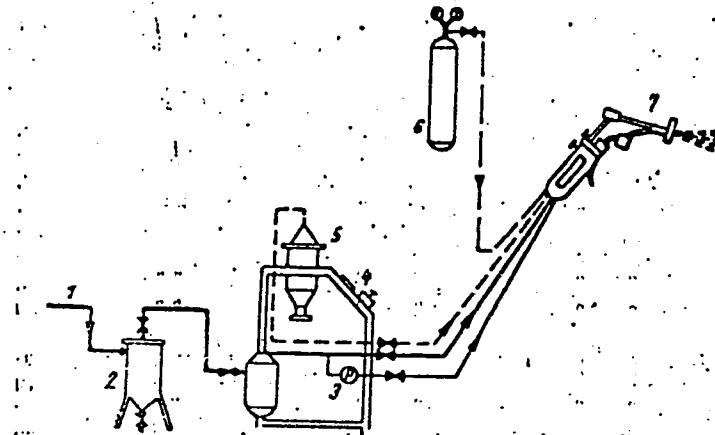


Fig. 1. Diagram of installation for gas-flame plastic spraying (thick line - compressed air for spraying; thin line - compressed air; thick dash line - acetylene; thin dash line - polyethylene powder suction)
1 - from compressor, 5-6 atm; 2 - oil-water separator; 3 - reducer;
4 - UPN unit; 5 - feeder tank; 6 - acetylene; 7 - GLN-4 burner

Card 3/3

SHIGUNOVA, N.A.

7

18 18 18

4E2C

18 18 18
Volphidizing of Chromium Stainless Steel. E. P. Pukhovskii,
P. A. Sogolov, N. A. Shigunova, and G. P. Budavary.
(Metallovedenie i Obrabotka Metallov, 1956, 2, 60-63).
Trial procedures on test pieces using Fe3-graphite-K4Fe(CN),
mixtures are described, and wear tests against steel discs were
carried out. Work is continuing.

BB
MT

SHIK, A.

SHIK, A.

Amateur photographers of the Estonian Planning Institute. Sov. foto
17 no.12:21 D '57. (MIRA 11:1)
(Estonia--Photography)

SHIK/B.I.

TARASENKO, M.P.; SHIK, B.I.; DOBROVOL'SKIY, P.M.; SEMENOV, A.G., red.

[Hints to fruit and grape growers] Sovety sadovodam i vinogradariam.
Kiev, Gos.izd-vo sel'khoz. lit-ry USSR, 1957. 234 p. (MIRA 10:12)
(Fruit culture) (Viticulture)

TARASENKO, Moisey Petrovich; SHIK, Boris Il'ich; DOBROVOL'SKIY, Pavel
Mikhaylovich; MILOKOSTA, N.Ya., red.; NEMCHENKO, I.Ye., tekhn.
red.

[Advice to fruit and grape growers] Sovety sadovodam i vinogra-
darium. Kiev, Gos.izd-vo sel'khoz.lit-ry USSR, 1960. 249 p.
(MIRA 15:1)
Izd.3.

(Horticulture--Handbooks, manuals, etc.)
(Viticulture--Handbooks, manuals, etc.)

TARASENKO, M.P.; SHIK, B.I.; DOBROVOL'SKIY, P.M.; MILOKOSTA, N.Ya.,
red.; KALASHNIKOVA, O.G., tekhn. red.

[Advice on fruit culture and viticulture] Sovety po sadovodstvu
i vinogradarstvu. Izd.4., dop. Kiev, Gossel'khozizdat USSR,
1962. 276 p. (MIRA 15: 6)
(Fruit culture)

SHIK, E.I.; EFENDIYEV, G.Kh.

Radioactive chemical elements in mineral waters of Chukhuryurd
springs. Trudy Inst.khim.AN Azerb. SSR 19:130-134 '61.
(MIRA 14:10)
(Chukhuryurd--Radioactive substances)

EFENDIYEV, G.Kh.; SHIK, E.I.

Find of gallium in oil field waters. Geokhimiia no.3:371-372
(MIRA 18:7)
Mr '65.

1. Institut khimii AN AzerbSSR, Baku.

Mathematical Reviews
Vol. 15 No. 1
Jan. 1954
Algebra

Šik, F. Sur les décompositions créatrices sur les quasi-groupes. *Publ. Fac. Sci. Univ. Masaryk* 1951, 169-186 (1951). (Russian summary)

The author develops a theory of the congruence relations, called here creative decompositions, on a (finite) quasigroup G , in terms of the group G_r of permutations on G generated by its multiplications. The main tool is the theorem that a decomposition is creative (an equivalence relation on G is a congruence) if and only if it partitions G into the transitivity systems of an invariant subgroup of G_r . Some attention is paid to the case when the corresponding homomorph of G is a loop. Terminology and concepts due to Borůvka [Math. Ann. 118, 41-64 (1941); *Rozpravy* II. Třídy České Akad. 53, no. 23 (1943); Acad. Tchèque Sci. Bull. Int. Cl. Sci. Math. Nat. 44, 330-343 (1944); these Rev. 3, 200; 8, 449] play a large part in the investigation, which leads to a Jordan-Hölder theorem for quasigroups. Specialisation of G to be a loop yields results contained in those of Albert [Trans. Amer. Math. Soc. 54, 507-519 (1943); 55, 401-419 (1944); these Rev. 5, 229; 6, 42].

Since it is not stated explicitly that only finite quasigroups are considered, and some remarks could be read as implying that the work is valid for quasigroups generally, it is desirable to point out that the assumption of finiteness is made tacitly (p. 173) in showing that every homomorph of a quasigroup is a quasigroup [cf. Bates and Kiockemeister, Bull. Amer. Math. Soc. 54, 1180-1185 (1948); these Rev. 10, 353].

I. M. H. Etherington (Edinburgh).

SHAKHEAKHTINSKY, I.N.; SHIK, G.

Certain regularities of the chlorination of ethylene in a fluid bed of aluminum γ -oxide catalyst. Azerb. khim. zhur. no.5;
43-47 '54. (MIRA 18:3)

SHAKHTAKHTINSKIY, T.N.; SHIK, G.L.

Development of the method of chromatographic analysis of the
products of ethylene chlorination. Azerb.khim.zhur. no.6:
65-68 '63. (MIRA 17:3)

SHIK, G. Z.

Cand. Veterinary Sci. Mbr., Sci. Ind. Lab. Combating Diseases Young Agricultural Animals, Min. Sovkhozes, RSFSR, -c1948-. "Methods of Laboratory Research of Material, to Determine the Presence of Mange Ticks," Veterinariya, No. 7, 1947; "Sulfamide Preparations and Their Use in Calf Diseases," ibid., No. 10, 1948.

17T21

USSR/Medicine - Ticks
Medicine - Mange

Jul 1947

"Methods of Laboratory Research of Material, to
Determine the Presence of Mange Ticks," G. Z.
Shik, 2 pp

"Veterinariya" Nc 7

Experiments conducted at Scientific and Pro-
duction Laboratory of the Ministry of Animal
Husbandry, RSFSR. Discusses various methods of
transmitting goods, which would guarantee their
not carrying mange ticks from one locality to
another.

17T21

SHIK. G. Z.

PA 31/49T107

USSR/Medicine - Animals, Diseases
Medicine - Sulfanilamide and Sulfanilamide

Derivatives

Oct 48

"Sulfanide Preparations and Their Use in Calf Diseases",
G. Z. Shik, Cand. Vet. Sci., Sci. Ind. Lab. Combating
Diseases of Young Agr. Animals, Min. of Sovkhozes RSFSR,
4 3/4 pp

"Veterinariya" No 10

When sulfanide preparations are administered to
calves and young pigs, secondary actions on the
heart, blood, nervous system and other organs occur.
Hence, care must be exercised in treatment. Plentiful

31/49T107

USSR/Medicine - Animals, Diseases (Contd.)

Oct 48

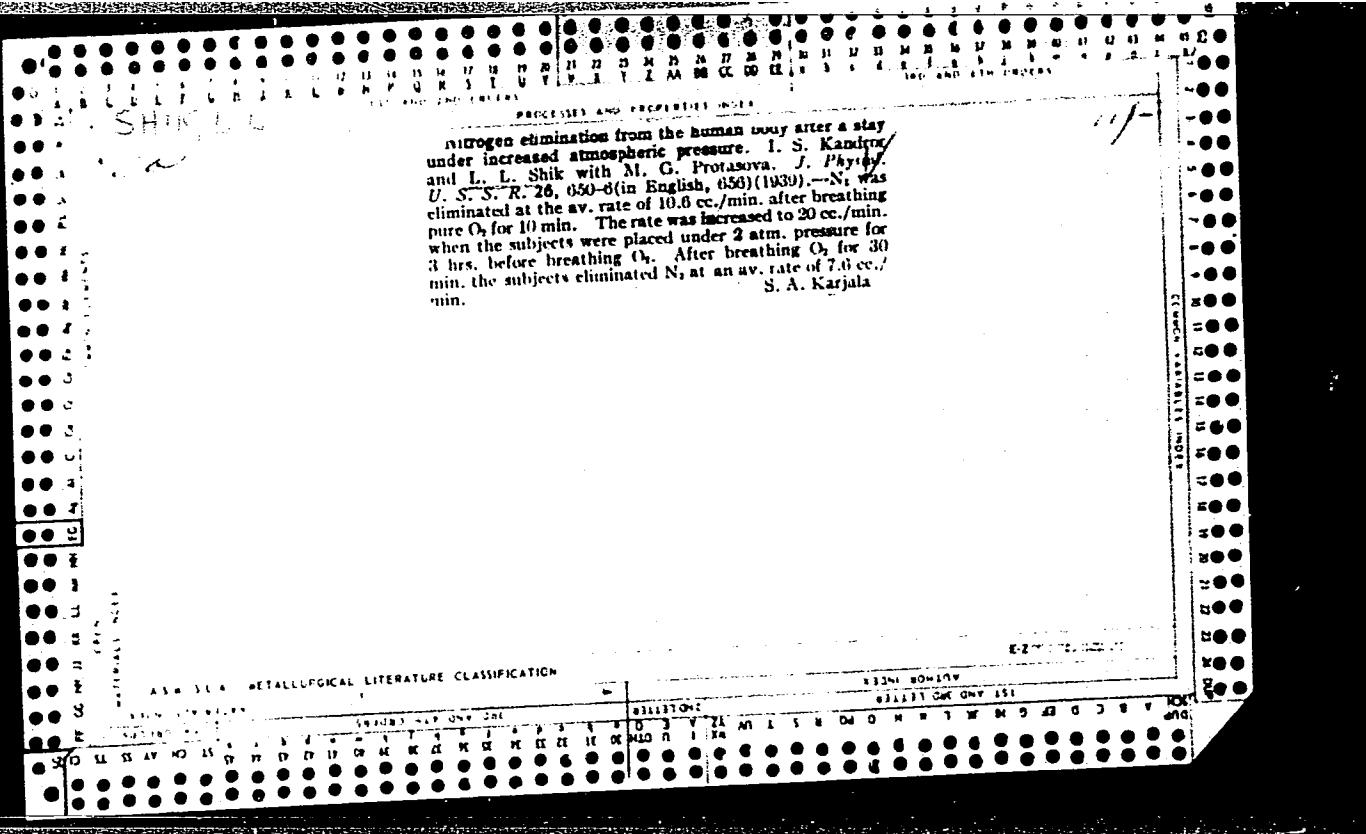
feeding is indicated, and acid (hydrochloric, lactic,
etc.) and sulfur compounds (Glauber salt, etc.) are
contraindicated. Lists other points to be borne in
mind.

31/49T107

31/49T107

SHIK, I.M., redaktor; YERSHOV, P.R., vedushchiy redaktor; TROFIMOV, A.V.,
tekhnicheskiy redaktor.

[Manual of time norms for automobile repairing] Sbornik norm
vremeni na remont avtomobilei. Izd.3-e, ispr.i dop. Moskva, Gos.
nauchno-tekhn.izd-vo neft.i gorno-toplivnoi lit-ry, 1957. 466 p.
(Automobiles--Maintenance and repair) (Time study)
(MLRA 10:11)



SHIK, L. I.

"Gas Exchange in Cases of Oxygen Deficiency," Sub. 18 Sep 47, Combined Scientific Council of Institutes, Acad Med Sci USSR.

Dissertations presented for degrees in science and engineering in Moscow in 1947.

SO: Sum. No. 457, 18 Apr 55

SHIK, L.L. (Moskva)

I.M.Sechenov and physiology of working movements in man. Zhur.
vys.nerv.deiat. 6 no.1:175-181 Ja-F' 56. (MLRA 9:7)
(PHYSIOLOGY, history,
contribution of I.M.Sechenov (Rus))
(SECHENOV, IVAN MIKHAILOVICH, 1829-1905)

MOROZOVA, I.A.; SHIK, L.L.

Action potentials of the respiratory muscles in patients with respiratory deficiency [with summary in English]. Biul.eksp.biol. i med. 43 no.5:61-65 My '57. (MIRA 10:10)

1. Iz fiziologicheskoy laboratorii (zav. - prof. L.L.Shik) Tsentral'-nogo instituta ekspertizy trudosposobnosti i organizatsii truda invalidov (dir. - prof. O.I.Sokol'nikov), Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR V.N.Chernigovskim.

(RESPIRATION, physiol.

action potentials of resp.musc. in patients with resp. defic. (Rus))

(LUNG DISEASES, physiol.
same)

VISHNEVSKIY, A.A.; SHIK, L.L; KHODOROV, B.I.

Cybernetics in surgery. Eksper.khir. 4 no.1:6-11 Ja-F '58.
(MIRA 12:2)

(SURGERY
cybernetics in surg. (Rus))
(CYBERNETICS
same)

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